Amendments to the Specification

Please insert the accompanying paper copy of the Sequence Listing containing SEQ ID NOS: 1-53, page numbers 1 to 2, at the end of the application, in adherence with 37 CFR §§ 1.821-1.825.

Please replace the second paragraph on page 33 with the following amended paragraph:

-- In one embodiment, the viral vector is an adenoviral vector, which includes a coding region of a gene essential for replication of the vector, wherein the coding region is selected from the group consisting of E1a, E1b, E2 and E4 coding regions. The term "gene essential for replication" refers to a nucleic acid sequence whose transcription is required for the vector to replicate in the target cell. Preferably, the gene essential for replication is selected from the group consisting of the E1A and E1b coding sequences. Particularly preferred is the adenoviral E1A gene as the gene essential for replication. Methods for making such vectors are well ~~know~~ known to the person of ordinary skill in the art as described, e.g., in Sambrook et al., in Molecular Cloning: A Laboratory Manual, Cold Spring Harbor, New York, 1989. The present invention provides novel viral vectors based on the oncolytic adenoviral vector strategy as described in U.S. Patent No. 5,998,205, issued December 7, 1999 to Hallenbeck et al. ~~and in U.S. provisional application _____ filed January 14, 2002, entitled "Novel Oncolytic Adenoviral Vectors" (Docket No. 4-31704P3/PROV/GTI)~~, the disclosures of which are hereby incorporated by reference in their entirety. In particular, oncolytic adenoviral vectors are disclosed in which expression of at least one adenoviral gene, which is essential for replication, is controlled by a tissue-specific promoter which is selectively transactivated in cancer cells. In one embodiment a tissue-specific promoter controls the expression of E1a. In a particularly preferred embodiment both the E1a and E4 genes are controlled by tumor-specific promoters. Methods for preparing tissue-specific replication vectors and their use in the treatment of prostate cancer cells and other types of abnormal cells which are harmful or otherwise unwanted *in vivo* in a subject are described in detail, e.g., in U.S. Patent No. 5,998,205. U.S. Patent No. 5,698,443 describes adenoviral vectors, in which expression of a gene essential for replication is controlled by the PSA promoter/enhancer. Unlike the vectors of the present invention, however, the viral vectors --

Please replace the last paragraph on page 36 with the following amended paragraph:

-- cDNA is prepared using 1 μg total RNA isolated from prostate tissues. Primers used to amplify specific gene products are: hepsin sense, 5' CGGGACCCCAACAGCGAGGAGAAC-3' (SEQ ID NO: 50); hepsin antisense, 5' TCGGGGTAGCCAGCACAGAACATC-3' (SEQ ID NO: 51); PLAB sense, 5'-CGCGCAACGGGGACGACT-3' (SEQ ID NO: 52); and PLAB antisense, 5'-TGAGCACCATGGGATTGTAGC-3' (SEQ ID NO: 53). PCR conditions for hepsin and PLAB comprise 95°C for 10 minutes, 30 cycles of 95°C for 30 seconds, 55°C for 30 seconds (annealing), and 72°C for 30 seconds, and a final elongation step of 72°C for 7 minutes. All PCR reactions use a volume of 20 μL, with 1 U AmpliTaq Gold (Perkin-Elmer, --

Please replace Table 4 on page 43 with the following amended table:

Table 4. List of Top 50 Genes Identified According to Metric
(Notes: Accession number can be used to identify the unique identity of each gene at NCBI – UniGene at http://www.ncbi.nlm.nih.gov/UniGene/ and at TIGR at http://www.tigr.org or http://www.ncbi.nlm.nih.gov/Entrez; AVG_NL and AVG_TUMOR are the average of the average difference hybridization intensities in normal and tumor tissues, respectively.)

SEQ ID NO.	Accession no.	Gene name	Ave. expression normal	Ave. expression tumor
1	X07732	hepsin	259	1832
2	AJ130733	2-methylacyl-CoA racemase	151	1735
3	AB000584	MIC-1	691	4924
4	AF061258	LIM protein	510	2146
5	AL049969	Unknown	1229	4091
6	AF065388	NET-1	1073	3631
7	M77836	pyrroline 5-carboxylate reductase	35	394
8	M26326	Keratin 18	875	2745
9	U80456	SIM2	26	435
10	M93036	GA733-2	307	1083
11	AF052107	Unknown	122	636
12	U29344	Fatty acid synthase	662	2080
13	X70326	MacMarcks	1283	3492
14	AF071202	~~MRP4~~ MOAT-B	155	766

SEQ ID NO.	Accession no.	Gene name	Ave. expression normal	Ave. expression tumor
15	AJ223352	histone H2B	414	1376
16	AB018330	KIAA0787	441	1509
17	U83660	MRP4	85	578
18	X83425	Lutheran	500	1479
19	M30894	T-cell receptor Ti rearranged gamma-chain	1495	5025
20	U07919	aldehyde dehydrogenase 6	1371	3387
21	D82345	NB thymosin beta	230	957
22	AL079298	Unknown	169	811
23	HT2351	Prostate Specific, Alt. Splice Form 2	3466	8594
24	W29087	Unknown	247	741
25	HT2352	Antigen, Prostate Specific, Alt. Splice Form 3	472	1361
26	AL039458	Unknown	459	1187
27	J02783	thyroid hormone binding protein (p55)	2359	5171
28	Y00486	adenine phosphoribosyltransferase	183	577
29	L08044	intestinal trefoil factor	372	3623
30	AJ002308	synaptogyrin 2	2095	4520
31	U52522	arfaptin 2	289	802
32	X73066	Unknonw	332	869
33	AC005053	Unknown	922	2350
	~~HT2351~~	~~Antigen, Prostate Specific, Alt. Splice Form 2~~	~~3088~~	~~7319~~
34	M22806	thyroid hormone binding protein (p55)	3648	7540
35	AI885852	Unknown	969	2926
36	X87176	17-beta-hydroxysteroid dehydrogenase	194	657
37	M64788	GTPase activating protein (rap1GAP)	90	390
38	AF039918	CD39L4	55	394
39	U51903	RasGAP-related protein (IQGAP2)	92	344
40	Z80776	Histone H2A/g	349	971
41	AC003034	Unknown	91	473
42	U21931	fructose-1,6-biphosphatase	333	947
43	AI198311	Unknown	963	5033
44	AL109672	Unknown	468	1122
45	AI039144	Unknown	12	292
46	AL049977	Unknown	80	462

SEQ ID NO.	Accession no.	Gene name	Ave. expression normal	Ave. expression tumor
47	S82986	HOXC6	20	176
48	U21090	DNA polymerase delta small subunit	205	535
49	D13748	eukaryotic initiation factor 4AI	1140	2271